UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,537	12/18/2000	Andre Chovin	200456US2XPC	4106

22850 7590 05/02/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
CABRERA, ZOILA E	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/719,537	CHOVIN ET AL.	
	Examiner	Art Unit	
	Zoila E. Cabrera	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2/1/05.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 5-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 5-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Final Rejection

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The rejection under 103 regarding claims 5-10 is maintained.

New claims 11-20 have been added.

Claim Rejections - 35 USC § 103

2. Claims 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Starke et al. (US 5,428,555)** in view of **Roseman (5,038,318)**.

Starke discloses, regarding claim 5, a system comprising:

- At least one automaton, said at least one automaton provided with a data exchange function (Fig. 1A, elements 12, 18a-18f; Col. 5, lines 51-56; Fig. 1B element 41), said at least one automaton connected to sensors and/or actuators (Col. 1, lines 33-40); a communication line (Fig. 1, element 40, Fig. 1 B, communication line between elements 13, 25 and 41); and a microcomputer connected to communicate with said at least one automaton through the communication line connected to a microcomputer input (Fig. 1, element 13 and 41), said microcomputer comprising an automaton interface driver (Fig. 1, element 13b), an operating system (Fig. 1, Host CPU), and a spreadsheet program (Col. 4, lines 49-65; Col. 6, lines 48-51).

Regarding claims 6-9, and 13 **Starke** further discloses,

- said at least one automaton comprises remote inputs/outputs, and said **at least one of** a sensor or an actuators connected to said at least one automaton are configured to communicate data to the communication line and is configured to receive **at least one of** a microcomputer commands **or** a data from the microcomputer via the communication line (Col. 1, lines 33-40; Fig. 1, elements 11, 27, 41; Col. 7, lines 14-18);
- said automaton interface driver emulates the proprietary language for **at least one of** *a control function*, a dialog function, a parameterizing function or a program download function of said at least one automaton (Fig. 1, elements 13, 13b, 41; Col. 6, lines 48-58; Fig. 2D, i.e., CONTROL);
- said at least one automaton further comprises memory operatively arranged to store a characteristic of operation of said at least one automaton (Col. 7, lines 15-18);
- said spreadsheet program is dynamically associated with at least one other program, said system further comprising means for processing said data received from said at least one automaton by said at least one other program (Col. 4, lines 48-65).

Regarding new claims 12, and 17-20, **Starke** discloses,

- the automaton interface driver is a software running on said microcomputer (Fig. 1, element 13b; Col. 6, lines 59-63);
- at least one automaton is connected to at least one sensor (Col. 1, lines 33-40);
- said at least one automaton is connected to at least one actuator (Fig. 2D, i.e., valves).

- said at least one of a sensor or an actuator is configured to receive a microcomputer command via the communication line (Col. 12, lines 14-18; Fig. 2D);
- said at least one of a sensor or an actuator is configured to receive data from the microcomputer via the communication line (Col. 12, lines 14-18; Fig. 2D).

Starke discloses the limitations of claim 5 above but fail to specifically disclose, some limitations of claim 5 and the limitations of claims 10-11, 13-16. However, **Roseman** discloses such limitations as follows:

Regarding claims 5,

- said automaton interface driver cooperates with the operating system to provide commands from said spreadsheet program and to receive data from said at least one automaton through said communication line and microcomputer input, and wherein said spreadsheet program sends commands to said automaton interface driver (Col. 2, line 61- Col. 3, line 23);

Regarding claim 10,

- said automaton interface driver organizes spreadsheet program commands into messages for transmission to said at least one automaton (Col. 2, line 61- Col. 3, line 23).

As for claim 11,

- said automaton interface driver is configured to manage and optimize a dialog between the microcomputer and the at least one automaton (Col. 2, line 66- Col. 3, line 8 and lines 13-17).

As for claims 14-16,

- said automaton interface driver emulates the proprietary language for a dialog function of said at least one automaton (Col. 3, lines 13-23);
- said automaton interface driver emulates the proprietary language for a parameterizing function of said at least one automaton (Col. 2, lines 61-68);
- said automaton interface driver emulates the proprietary language for a program download function of said at least one automaton (Col. 3, lines 17-23).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the teachings of **Starke** with the system of **Roseman** because it would provide an improved system wherein real-time control of programmable logic controllers is provided through a general purpose spreadsheet program operating in a personal computer (**Roseman** Col. 1, lines 10-16).

Response to Arguments

3. Applicant's arguments filed February 1, 2005 have been fully considered but they are not persuasive. Applicants contend, on page 7, that Roseman fails to disclose the claimed automaton interface driver that cooperates with the operating system to provide

commands from the spreadsheet program, wherein the spreadsheet program sends commands to the automaton interface driver.

Applicants agree that "Roseman teaches that a general purpose spreadsheet program performs information transfers to and from addressable registers of a PLC **without transfers through a specially written device driver program"** and present an argument that "a general purpose spreadsheet program communicating with the PLC register without a specially written device driver program **is not** an **automaton interface driver** cooperating with the operating system to provide commands from the spreadsheet program, **wherein the spreadsheet program sends commands to the automaton interface drive**".

While it is true that Roseman teaches a general purpose spreadsheet program that performs information transfers to and from addressable registers of a PLC without transfers through a specially written device driver program, **Roseman also teaches** that it is known that "The user also **writes a device driver program** for the personal computer that facilitates the **operating system program** to communicate with the circuit card interface" (Col. 2, line 61- Col. 3, line 1). Roseman further discloses that "every transfer of information to and from the spreadsheet, database or analysis program must occur through menu selected keystroke commands. **Sending information to a PLC occurs by transfers to the acquisition program, the operating system program, the device driver program**", (Col. 3, lines 10-17). Therefore, Roseman discloses the claimed automaton interface driver that cooperates with the operating system to provide commands from the spreadsheet program, wherein

the spreadsheet program sends commands to the automaton interface driver (Col. 2, line 61- Col. 3, line 23).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (571) 272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday). If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. Additionally, the fax phones for Art Unit 2125 are (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Zoila Cabrera
Patent Examiner
4/28/05

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100